QUICK GUIDE

SAFETY Everyone. Everywhere. Every day

MANAGING THE RISK OF FALLS

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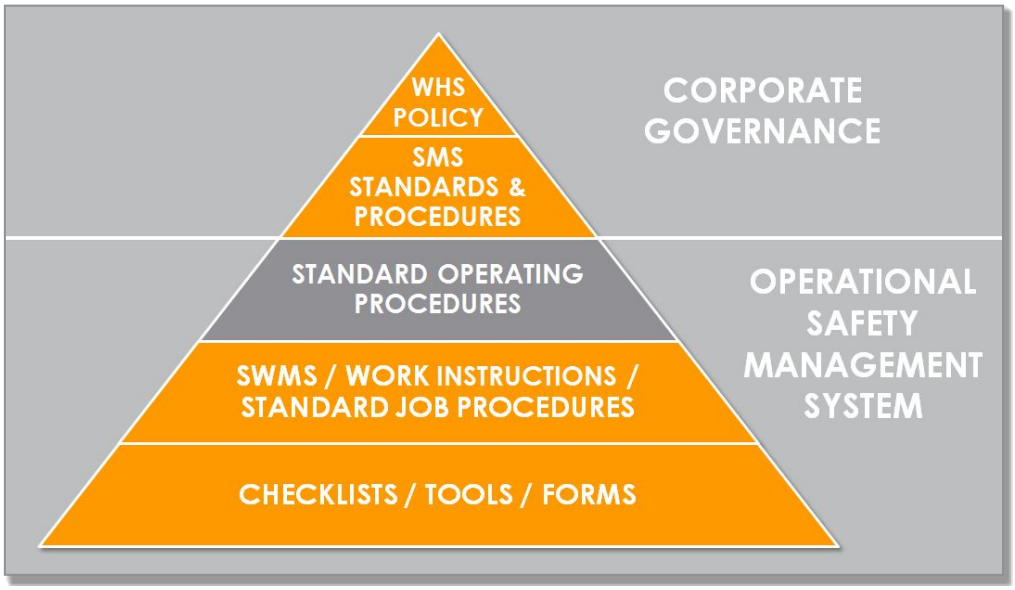
1. SMS DOCUMENT HIERARCHY



2. PURPOSE

To outline the minimum key compliance requirements for managing the risk of falls to ensure arrangements at each Queensland Urban Utilities (QUU) controlled worksite are in place, effective and meet QUU's safety management system (SMS) requirements.

This quick guide has been developed as information and planning resource only and is not to be used as a WHS inspection or audit tool. WHS audits and inspections must be undertaken using the relevant WHS audit or inspection tool as outlined in **WHS Audit and Inspection Procedure (PRO366)**.

3. RELATED DOCUMENTS

- Managing the Risk of Falls Standard Operating Procedure (PRO409)
- Working at Heights Safe Work Method Statement (SWMS3)
- Work at Heights Permit Form (TBA SWMS3)
- Permit to Work Standard Operating Procedure (STD76)
- Plant Standard Operating Procedure (PRO386)

4. FURTHER INFORMATION

For further information, contact your Health and Safety Representative or the QUU Safety Team.

5. PROCESS ACTIONS TO ACHIEVE COMPLIANCE

AT ALL TIMES	REFERENCE
1. RISK ASSESSMENT	
(a) Risk assessment shall be conducted prior to undertaking all working at heights activities using the Work at Heights Permit (TBA) AND • A **Working at Heights Safe Work Method Statement (SWMS3)**; or • Generic risk assessment for multiple tasks and locations provided the fall hazards and risks are the same.	Section 7.1 (PRO409)
(b) Workers and other affected stakeholders such as contractors and land owners shall be consulted during the risk assessment process.	
2. PERMIT TO WORK	
(a) If working above 1.8 metres a Work at Heights Permit (TBA) and Working at Heights Safe Work Method Statement (SWMS3) **must** be completed by a competent person/PICOW. (b) If working below 1.8 metres a Work at Heights Permit and Working at Heights Safe Work Method Statement (SWMS3) must be completed if **deemed necessary** by a site risk assessment.	Section 7.2 (PRO409)
3. HIERARCHY OF CONTROLS	
(c) In developing a safe system of work, the hierarchy of controls (refer to 3.C below) shall be followed, with preference give to higher order controls whenever reasonably practicable.	Section 7.3 & Appendix A (PRO409)
(d) When required, a combination of controls shall be utilised e.g. PPE along with use of a temporary work platform.	
(e) Hierarchy of controls to be used: • **Prevent the fall**: Carry out the task on the ground to eliminate the risk of a fall, or if this is not practicable; • **Prevent the fall**: Carry out the task on a solid construction, or if this is not practicable; • **Minimise the risk of a fall:** Provide and maintain a safe system of work by using: o **A passive fall prevention** device such as a temporary work platform, scissor lift, cherry picker, roof safety mesh or guard-railing shall be used, or if this is not practicable; o **A work positioning system** such as industrial rope access and travel restraint systems shall be used, or if this is not practicable; o **A fall injury prevention system** such as, catch platforms and individual fall arrest systems shall be used, or if this is not practicable; o **A fixed or portable ladder** or an administrative control shall be used.	
4. WORK ON THE GROUND	
(a) Where practicable, tasks are conducted at ground level to eliminate the need to work at height.	Section 7.4 (PRO409)
5. WORK ON A SOLID CONSTRUCTION	
(a) Tasks that cannot be undertaken from the ground must be undertaken on a solid construction.	Section 7.5 (PRO409)
(b) Design of edge protection, access and egress structures must meet the requirements of the *Managing the Risks of Falls at Workplace Code of Practice 2011* and *AS 1657: Fixed platforms, walkways, stairways and ladders – Design, construction and installation*.	
6. TEMPORARY WORK PLATFORMS	

AT ALL TIMES	REFERENCE
(a) Temporary work platforms are used to provide a working area for jobs that are not able to be performed on permanent installed fixed platforms. The risk assessment must assess which type of temporary platform is most suitable.	Section 7.6 (PRO409)
7. SCAFFOLDS	
(a) Scaffolding on QUU worksite must be installed and inspected by a competent person.	Section 7.6 (PRO409)
(b) Scaffolding is to be inspected before use, after any incident that could affect its stability e.g. severe storm, after any repairs, and at least every 30 days.	
(c) Unauthorised access to scaffolding must be prevented on scaffolding that is incomplete or left unattended (e.g. danger tags, warning signs)	
(d) Edge protection (e.g. hand rails, mid-rails and toe boards) must be provided at every open edge of a work platform.	
(e) Scaffolds must comply with *AS / NZS 1576 2010 Scaffolding* and *AS / NZS 4576 Guidelines for Scaffolding*.	
8. Elevated Work Platforms (EWPs)	
(a) EWPs shall not be used for access and egress to work areas.	Section 7.6 (PRO409)
(b) Workers required to operate an EWP shall be trained and competent to do so.	
(c) Use of safety harnesses and lanyards shall be applied as per manufacturer's requirements	
(d) Operators of boom-type EWPs with a boom length of 11 metres or more shall be licensed.	Sections 7.6 & 7.9 (PRO409)
9. LIFT BOXES / CRANE WORKBOXES	
(a) Workers are attached using safety harness and lanyards. Use of safety harnesses and lanyards are applied as per manufacturer's requirements.	Section 7.6 (PRO409)
(b) The workbox must not to be suspended over persons.	
(c) The workbox must be designed for the task.	
(d) The workbox must be fitted with suitable anchorage capable of withstanding fall forces as specified in *AS / NZS 1891.4 Industrial fall arrest systems and devices – Selection, use and maintenance*.	
(e) The crane must be is stabilised at all times while the workbox is used. Crane must be fitted with a safety hook and lashed accordingly.	
(f) Drive up and drive down controls shall be used on both the hoisting and luffing motions. No declutching allowing free fall is to be used.	
(g) Workers must not exit a suspended workbox.	
(h) At least one person in the workbox must have a Dogger competency.	
(i) The operator must remain at the controls of the crane at all times.	
10. WORK BOXES – SECURED TO FORKLIFT	
(a) Workers must remain in the work box at all times, wearing a safety harness and lanyard.	Section 7.6 (PRO409)
(b) People are not to be raised on the tynes of forklift trucks or the pallet.	
(c) No other device such as ladder or pallets are to be used to gain additional height.	
(d) The safety gate on work boxes must self-lock and kept shut in the elevated position.	

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11. PERIMETER GUARD RAILS / EDGE PROTECTION	
(a) Guard rails shall be applied where a person is at risk of falling.	Section 7.7 (PRO409)
(b) Edge protection system shall be installed if the risk assessment determines that any fall could result in serious harmful or dangerous consequences.	
(c) Guard rail systems shall be checked to ensure they are adequate for the potential load. A top rail, 900mm to 1100mm, above the working surface and a mid-rail and toe board must be in place.	
(d) Edge protection for permanent structures / plant must meet the requirements of *AS 1657 Fixed platforms, walkways, stairs and ladders – Design, Construction and Installation*.	
12. SAFETY MESH	
(a) The risk assessment for use of safety mesh must include and meet the following requirements: • Use of edge protection if there are exposed edges; • Compliant with *AS / NZS 4389 Safety Mesh*; • Competent persons used for installation of mesh.	Section 7.8 (PRO409)
13. WORK POSITIONING SYSTEMS	
(a) Where it is not practicable to work at heights from a work platform, a work positioning system must be considered. Users, including supervisors, must undertake a competency based course of training.	Section 7.9 (PRO409)
14. INDUSTRIAL ROPE ACCESS SYSTEMS	
(a) Exclusion zones are to be established around the work area.	Section 7.10 (PRO409)
(b) Workers must be trained and competent as per the requirements detailed in PRO409.	
(c) A back up system must be used to protect the operator.	
(d) Two independently anchored ropes must be used for each person.	
(e) Any person within 2 metres of an unguarded edge must be adequately secured.	
(f) All operators must wear a full body harness.	
(g) Supervisors must have a means to communicate with workers.	
(h) Appropriate PPE must be used such as hard hats, gloves, hearing protection, goggles and masks.	
(i) Barricades and signposts must be placed on all access areas below the working area and anchorage locations to exclude and alert the public and tradespeople.	
15. RESTRAINT TECHNIQUE	
(a) The user must be able to maintain secure footing.	Section 7.11 (PRO409)
(b) The work surface must sufficiently support the worker.	
(c) The worker shall not be able to reach an exposed edge.	
(d) Must be installed by a competent person.	
(e) Users shall be trained in safe operating requirements and safety equipment.	
16. INDIVIDUAL FALL ARREST SYSTEMS	
(a) Fall arrest system shall be used when: it is possible to fall over an edge; the user has a restraint line that can be adjusted such that a free fall position cannot be reached; the slope is over fifteen degrees; or there	Section 7.12 (PRO409)

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is danger of the user falling through a surface.	
(b) Prior to undertaking work using fall arrest equipment, a check that there are no obstructions in the potential fall path must be undertaken.	
(c) Equipment must be inspected prior to use. Defective equipment is to be tagged as out of service.	
(d) Must be installed so the maximum free fall distance before a fall arrest system activates is 2m.	
(e) Sufficient distance must be provided between the work surface and any surface below to enable the system to fully deploy.	
(f) A shock absorbing lanyard shall be attached to the harness. Lanyards must not be used in conjunction with inertia reels. Minimum slack in fall arrest lanyard must be maintained.	
(g) A full body harness must be worn.	
(h) Fall arrest systems must ensure the safe use of inertia reels and use compatible components	
(i) Fall arrest equipment must not be anchored to scaffolding, handrails or other structures not designed and approved to withstand 15 kN of force.	
(j) Persons using a fall arrest system must not work alone.	
(k) Requirements and specifications for attachment hardware for attaching lanyards to harnesses must comply with AS / NZS 1891 series.	Section 7.12 (PRO409)
17. ANCHORAGE POINTS	
(a) Competent persons must be engaged for designing, selecting and/or installing anchorage points. Further they must be tested and approved by a competent person prior to use. All welds to be 100% magnetic tested on installation.	Section 7.13 (PRO409)
(b) Minimum breaking strength of 15 kN for use by one person or 21 kN for two persons attached to the same anchorage point must be in place.	
(c) Two is the maximum number of persons that can be attached to any one point.	
(d) Anchorage points must be above the head of the worker and located so that a lanyard of the system can be attached to it before the person using the system moves into a position where the person could fall.	
(e) Each component of the system must be inspected by a competent person after it is installed but before it is used; at regular intervals; and immediately after it has been used to arrest a fall.	
18. ANCHORAGE LINES OR RAILS	
(a) Anchorage lines or rails shall be installed to provide continuous fall protection for persons using ladders or climbing towers. Double lanyards can be used if not suitable. Training must be provided.	Section 7.14 (PRO409)
19. LADDERS	
Portable Ladders (a) Ladders should only be used as a means of access or egress from a work area.	Section 7.15 (PRO409)
(b) Portable ladders must have a load rating of at least 120kg and be manufactured for industrial use.	
(c) Ladders must be positioned with a slope of 4:1, with firm footing and secured to prevent movement.	
(d) Where a ladder is used to gain access to a working platform or roof	

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then the top of the ladder must extend beyond the platform or roof no less than 1 metre.	
(e) Metal ladders and timber ladders with wire reinforcing are not be used where an electrical hazard exists.	
(f) All ladders must be inspected prior to use and marked for identification purposes. Ladders without legible identification or not in good condition shall not be used.	Section 7.15 (PRO409)
(g) A tool belt or side pouch must be used to carry tools while climbing a ladder.	
Fixed Ladders (h) Fixed ladders must be installed in accordance with *AS1657 Fixed Platforms, Walkway, Stairways and Ladders – Design Construction and Installation*.	Section 7.15 (PRO409)
(i) Fixed ladders with angles exceeding 75 degrees must be fitted with a fall arrest system.	
(j) A specifically designed rescue procedure must be developed and in place for ladder cage situations.	
20. INSPECTION REQUIREMENTS	
(a) Every approved Safety Harness, Permanent and Temporary Restraint Lanyard, Temporary Safety line, Anchorage Point or other item of fall prevention equipment must be inspected and tagged by competent person.	Section 7.17, Table 2, (PRO409)
(b) Workers must conduct pre-use inspections on working at heights equipment e.g. harnesses, lanyards, inertia reels.	Section 7.17 and Table 2 (PRO409)
(c) Periodic inspections of working at heights equipment must be conducted (i.e. 3, 6 and 12 monthly) by a competent person as per QUU WHS, AS1891 and manufacturers requirements.	
(d) Working at heights equipment deemed fit for purpose must be fitted with a coloured tag in accordance with QUU requirements.	Section 7.17 and Table 3 (PRO409)
(e) Equipment without an inspection tag or that is not fit for purpose must be removed from service.	
21. EXCLUSION ZONES	
(a) Exclusion zones must be established where people may be exposed to hazards from overhead work, or hazardous area. Appropriate drop zones must be determined, where required.	Section 7.18 (PRO409)
(b) Barricades, barriers and signage must be used to demarcate drop zones and hazardous areas.	
(c) Tool lanyards are to be used to further protect personnel from objects dropped / dislodged by personnel working at height.	
22. PURCHASING AND HIRE OF PLANT AND EQUIPMENT	
(a) Purchasing and rental of temporary work platforms must be conducted in accordance with **QUU Plant SOP (PRO386)**.	Section 7.19 (PRO409) and PRO386
23. EMERGENCY RESPONSE AND PREPAREDNESS & PLANNING	
(a) Site plans for the emergency response, first aid and rescue of personnel who are at risk of a fall must be in place.	Section 7.20 (PRO409)
(b) Rescue plans must be developed and tested for working at heights activities, prior to the task commencing.	
(c) Measures must be taken to prevent suspension intolerance in the event of a worker falling and being suspended in a harness.	

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24. TRAINING	
(a) Personnel who conduct work at heights must be trained in the tasks(s) applicable to their role. Training and competency requirements must be specified.	Section 7.21, Table 4 (PRO409)
(b) Personnel shall receive instruction and training in emergency and rescue procedures and in the use of rescue equipment.	
25. RECORDS	
(a) All applicable documentation and records must be kept in MLS with physical hard-copies held on site in a manner easily accessible for audit and review at each work site or facility. This includes: • Working at Height Permits prepared and verified by authorised persons. • Associated safety documents, risk assessments, SWMS. • Working at Heights training and competency records. • Registers, inspection data and maintenance records for all working at heights safety equipment. • Inspection and/or audit results and a record of the subsequent actions required.	Section 7.22 (PRO409)

6. REVIEW PROCESS.

This document is to be reviewed every 12 months or earlier if:

- there is an identified risk to business,
- a significant safety event occurs,
- incident investigation or audit results show that application of the Quick Guide fails to deliver the required outcomes,
- there are changes in associated legislation, and
- There is evidence that the Quick Guide is not having a positive impact on safety-related KPIs.